

IN THE UNITED STATES DISTRICT COURT
DISTRICT OF OREGON

WARN INDUSTRIES, INC., an Oregon)
corporation,)

Plaintiff,)

vs.)

RAMSEY WINCH COMPANY, an)
Oklahoma corporation,)

Defendant.)

Civil Case No. 05-220-KI

OPINION AND ORDER

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KING, Judge:

On August 11, 2006, I construed four terms of Warn Industries, Inc.’s (“Warn”) U.S. Patent No. 5,482,255 (“the ‘255 patent”). On September 8, 2006, I responded to Ramsey Winch Company’s (“Ramsey”) request for clarification of one of the constructions. Before the court is Ramsey’s Motion for Summary Judgment as to Claim Construction of “Drum Assembly” and “Drum” (#140).

DISCUSSION

The disputed terms are in the following paragraphs from Claim 1:

a cable *drum assembly* having opposed ends and a cylindrical exterior surface, said *drum assembly* rotatably mounted to the housing and a cable mounted to the exterior surface of the *drum* to be wound onto and off of the *drum* upon alternate rotation of the *drum*;

a motor having a drive shaft mounted to the housing at one end of the *drum*, a brake shaft coupled to the motor drive shaft and extended through the center of the *drum* toward the opposite end of the *drum*, a gear reducer mechanism at said opposite end engaged with the brake shaft, said gear reducer mechanism engaged with the *drum*, and configured to reduce the rotational affect of the drive shaft as applied to the *drum*;

a brake surface on said cable *drum assembly*, a movable braking member provided on said brake shaft and rotatable therewith and movable between engaged and disengaged frictional braking engagement with said brake surface of the *drum assembly* whereby, when engaged, the relative rotative movement between the brake shaft and *drum* is resisted; and

‘255 patent, 4:59-5:11 (disputed terms emphasized).

I refer to my explanation of the applicable law as stated in the August 11, 2006 Opinion and Order.

I. Construction of “Drum”

Ramsey contends that the term “drum” should be construed as “a one-piece cylindrical part on which a cable is mounted.”

Ramsey argues that to differentiate “drum” from “drum assembly,” the “drum” cannot be a collection of parts but must be a single part. If “drum” were construed to allow an additional part that rotated with the drum but was not integral to it, Ramsey continues, “drum” would mean essentially the same thing as “drum assembly.” Ramsey notes that the preferred embodiment shows the drum as a single piece 10, seen most easily in Figure 3. Ramsey argues that gaps between multiple parts would diminish the efficiency of the heat dissipation from the stator to the drum’s outer surface and on to the atmosphere.

Ramsey notes that the specification considers the stator separate from the drum, even though the two are closely connected:

a cylindrical stator which is fixed within the drum . . . and is in tight surface-to-surface fixed contact with the inner surface of the drum. . . . The stator is in effect an extension of the drum in that heat generated . . . is conducted through the stator material to the drums outer surface.

‘255 patent, 2:1-4, 2:18-20.

Warn contends that the term “drum” should be construed as “the hollow, open-ended cylinder that surrounds the brake mechanism.”

Warn cites Free Motion Fitness, Inc. v. Cybex Intern., Inc., 423 F.3d 1343 (Fed. Cir.

2005), for its holding:

“[A]” or “an” in patent parlance carries the meaning of “one or more” in open-ended claims containing the transitional phrase “comprising.” This convention is overcome only when the claim is specific as to the number of elements or when the patentee evinces a clear intent to . . . limit the article.

Id. at 1350 (“a cable linking” means “one or more cables linking”) (internal quotation and citation omitted); see also KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1356 (Fed. Cir. 2000) (“a . . . continuous . . . chamber” covers one or more continuous chambers, and reads on the accused device air mattress’s separate inflatable chambers for the head, body, and legs of the patient). Warn argues that under this law, any mention in the ‘255 patent of “a drum” or “the drum” cannot support the argument that the drum, or the heat conductive cylinder from my previous ruling, must be a single piece.

The cited cases discuss a different issue than Warn addresses. Free Motion and KCJ discuss situations in which there are multiple instances of the item, namely multiple cables and multiple chambers. Warn is arguing for multiple pieces making up one instance of the item. The two cases do not directly apply.

Warn contends that nothing in the claim, specification, or prosecution history shows a clear intention to limit the “drum” to one piece. Warn states that the specification only recognizes three features of the “drum”: (1) the central portion that surrounds the brake assembly and on which the cable is wound; (2) the ends that engage the housing; and (3) the flanges that define the area of the drum width on which the cable can be wound. Warn argues that the “drum” can differ from the “drum assembly” without the “drum” being required to be a

single piece. Warn further contends that it is common for a drum to contain a liner or an outer sleeve to change the diameter for a particular application.

Ramsey also submits extrinsic evidence to support the argument that one of ordinary skill in the art would understand the term “drum” to mean a single-piece cylindrical part. The evidence consists of parts manuals for eight winches from multiple manufacturers which all label a drawing of a single-piece cylindrical part as the drum. Warn contends that it cannot be determined from the parts manuals if the drums are actually a single piece or made from multiple pieces. I do not think there is a need to rely on extrinsic evidence here.

From the specification:

Basically the winch includes a cable drum 10 that is supported in the winch housing at its ends by bushings 13 for axial rotation relative to the stationary housing 9. A cable 16 wound on the drum 10 (and confined by drum flanges 15) is either wound onto or off of the drum with winding or unwinding rotation of the drum. Housing end 12 houses a motor that turns a shaft assembly 18 that extends through the center of the drum 10 and engages a planetary gear assembly 20 contained in housing end 14. The planetary gear assembly 20 is engaged with the cable drum 10. Thus the motor rotatively drives the shaft assembly 18 which rotatively drives the planetary gear assembly 20. The function of the planetary gear assembly is to reduce the rate of rotation so that the drum 10 is rotated by the planetary gear assembly at a rate that is a fraction of the rotation of the shaft assembly 18. Such gear reduction multiplies the torque produced by the motor as transmitted to the drums.

A brake mechanism 22 is mounted to the shaft assembly 18. The brake mechanism 22 functions to lock the shaft assembly 18 to the drum 10. The planetary gear assembly 20 is thus unable to generate the rotational difference between the shaft assembly 18 and the drum 10. The drum, the shaft and the winch housing are thus interlocked and rotation of the shaft and the winch is thereby stopped or braked.

‘255 patent, 2:45-3:1

The drum's purpose in the claim is to have the cable wound on and off the drum. The drum is also connected to the brake mechanism and to the shaft assembly in such a way that torque allows easier winding and unwinding of the cable and the cable can be completely braked.

Warn's proposed construction says nothing about the cable. Ramsey's proposed construction adds the requirement that the drum cylinder be a single piece. Certainly this would be the most common, as shown by the parts manuals, and is drawn in the preferred embodiment, but I see no requirement in the claim or even the specification that this be the case. Thus, I again choose a construction that differs from what the parties propose.

I conclude the term "drum" is defined to be "the cylindrical part on which a cable is mounted."

II. Construction of "Drum Assembly"

The term "drum assembly" is not mentioned in the specification.

Ramsey contends that the term "drum assembly" should be construed as "a collection of parts, including a drum, that rotate together with respect to the housing."

Ramsey contends that the drum assembly includes the drum, which provides the cylindrical surface, and an additional part defined in the claim as "a brake surface on said cable drum assembly." '255 patent, 5:5. Ramsey notes part of Claim 1:

a brake surface on said cable drum assembly, a movable braking member provided on said brake shaft and rotatable therein and moveable between engaged and disengaged frictional braking engagement with said braking surface of the drum assembly

'255 patent, 5:5-9. Based on this language from the claim, Ramsey argues that the movable braking member that rotates with the brake shaft is not part of the drum assembly. It contends

that the braking members, also called brake pads in the specification, are claimed as separate structures that rotate with the brake shaft and come into frictional contact with the brake surfaces on the stator contained within the drum assembly.

Ramsey relies on the specification's discussion of the brake surfaces to support its argument that the stator is part of the drum assembly:

A cylindrical stator 72 is fixedly secured to the inner wall of the drum 10. . . . The stator has a center bore 78 that allows passage therethrough of the shaft assembly. Spring 58 and retaining ring 64 are also located in the center bore 78. Cylindrical faces 80, 82 at each end provide braking surfaces.

'255 patent, 3:62-4:3.

Warn contends that the term "drum assembly" should be construed as "the drum, and the brake mechanism (comprising at least the stator and movable braking member) disposed within the drum which is adapted to lock the shaft assembly to the drum."

Both Warn and Ramsey agree that the "drum assembly" includes the drum and the stator. Warn, however, argues that it also includes the movable braking member that is adapted to lock the shaft assembly to the drum.

Warn relies on part of the specification:

A brake mechanism 22 is mounted to the shaft assembly 18. The brake mechanism 22 functions to lock the shaft assembly 18 to the drum 10.

'255 patent, 2:62-64. Warn contends that Figure 1 generally includes both the stator and the brake members in brake mechanism 22. Thus, Warn contends that "drum assembly" is used to refer to the drum and the brake mechanism.

The proper construction is delineated in the claim language. The parties agree that the stator is part of the drum assembly because the stator provides the brake surfaces. I agree with

Ramsey, however, that the movable braking member is called out as a separate part that engages, or not, with the braking surface of the drum assembly that is found on the stator end face.

Consequently, I will use Ramsey's proposed construction with a slight twist. Since the construction calls out the drum as one component, I think it should also expressly call out the stator.

I conclude the term "drum assembly" is defined as "a collection of parts, including a drum and a stator, that rotate together with respect to the housing."

III. Summary of Claim Constructions

The term "fixedly mounted" is defined as "firmly attached in a manner that prevents both relative rotation and axial movement between the stator and the drum."

The term "cylindrical outer surface constantly in surface-to-surface contact with a cylindrical inner surface of the drum" is defined as "a cylindrical outer surface in physical contact at all times but in a varying number of points with a cylindrical inner surface of the drum."

The term "heat conductive cylinder" is defined as "a solid cylindrical object formed of heat conductive material."

The term "end faces" is defined as "exterior surfaces defining the ends of a structure."

The term "drum" is defined to be "the cylindrical part on which a cable is mounted."

The term "drum assembly" is defined as "a collection of parts, including a drum and a stator, that rotate together with respect to the housing."

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CONCLUSION

Ramsey's Motion for Summary Judgment as to Claim Construction of "Drum Assembly" and "Drum" (#140) is granted in part as explained above.

IT IS SO ORDERED.

Dated this 31st day of October, 2006.

/s/ Garr M. King
Garr M. King
United States District Judge